

Inventory and Monitoring

The diverse landscapes within our National Parks hold a tremendous amount of natural wealth and beauty. However, beauty is not a sufficient indicator of the condition and health of the parks.

The Park Vital Signs Monitoring Program, established in the late 1990s, organized all parks with significant natural resources into 32 networks, including the Heartland Network, to conduct long-term monitoring for key indicators of change, or 'vital signs'.

Scientists within each network measure the condition of water, air, geologic resources, plants and animals, and the various ecological, biological, and physical processes that act on those resources. Such efforts will help provide early detection of potential problems enabling park managers to take action to restore ecological health of park resources before serious damage can occur.



*....protecting the habitat of
our heritage*

For more information about the
Heartland Network,
please visit our website at:

www.nature.nps.gov/im/units/htln

For more information about
Vital Signs Monitoring and the 32 networks,
please visit:
[www.nature.nps.gov/protectingrestoring/
IM/inventoryandmonitoring.htm](http://www.nature.nps.gov/protectingrestoring/IM/inventoryandmonitoring.htm)

**National Park Service
U.S. Department of the Interior**

Heartland Network
Inventory & Monitoring Program



Protecting our heritage

The 1916 Organic Act established the National Park Service and directed it to manage its lands....

*"to conserve the scenery and the natural
and historic objects and the wildlife therein
and to provide for the enjoyment of the
same in such manner and by such means
as will leave them unimpaired for the
enjoyment of future generations."*

The National Park Service serves as a key partner in preserving public natural and cultural resources. The NPS ensures that examples of our natural and cultural heritage are available for us, our children, and our grandchildren to enjoy. Natural resource inventory and monitoring efforts will help guarantee these goals are met.





The Heartland Network

The Heartland Network conducts vital signs monitoring in 15 Midwestern parks. These parks encompass tallgrass prairies, Eastern forests, scenic rivers, interior highlands, wetlands, savannas and springs and protect the plants and animals that depend on them for their survival.

Threats to our Heartland

Landscape fragmentation, water pollution, habitat loss, and invasive species have left our National Parks with a unique challenge to preserve remnants of nearly vanished habitats. The Heartland parks are no exception. The spread of invasive species such as Japanese honeysuckle and the decline of native species like the Ozark hellbender, this hemisphere's largest salamander, are but two examples of the natural resource issues faced by the 15 parks. Network staff have prioritized a list of the most critical resource indicators. By pooling their resources, parks are able to better address these priorities.

In the field

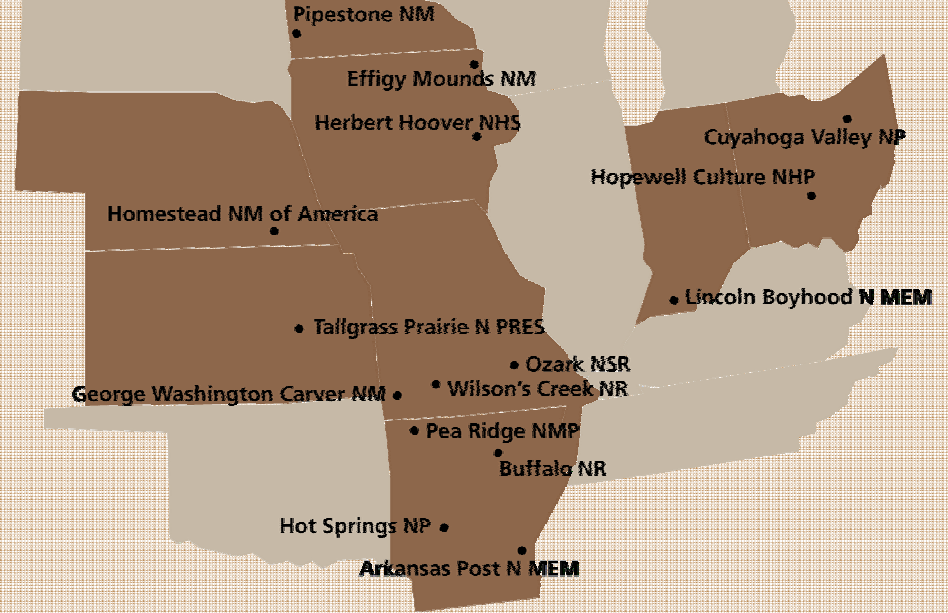
Park visitors may see scientists working in the water and on land. From terrestrial botany to aquatic ecology, scientists collect data using the best scientific methods available. But, field work is only the beginning. The credible scientific data they provide will help resource managers meet these challenges and best preserve and protect park resources for public benefit and enjoyment. Data managers, scientists, and park managers and rangers all have a hand in making this information available to all.

Heartland monitoring highlights:

- Populations of rare, threatened and endangered species including: Topeka shiner, Western prairie fringed orchid, Ozark hellbender, Indiana bat, Cerulean warbler
- Condition of Outstanding Natural Resource Waters
- Effects of prescribed fire management on land cover
- Water quality in streams and springs
- Prairie, savanna, and wetland ecosystem restoration
- Exotic and invasive species encroachment
- Stream condition associated with landscape changes in the watershed



Heartland parks at a glance



Arkansas Post National Monument: The first semi-permanent French settlement in the lower Mississippi Valley this 758 acre park is home to deer, alligators and bald eagles.

Buffalo National River: Canoeists, fisherman and other recreationists share this 135 mile stretch of one of the last remaining free-flowing rivers in the lower 48 states with more than 300 species of fish, insects, freshwater mussels and aquatic plants.

Cuyahoga Valley National Park: Remains of the Ohio & Erie Canal can be seen in this 33,000 acre refuge along the banks of the Cuyahoga River.

Effigy Mounds National Monument: Forests, prairies, and wetlands along the Mississippi provide the backdrop for prehistoric mounds shaped like mammals and birds in this 2,526 acre park.

George Washington Carver National Monument: More than 200 acres of rolling hills, woodlands, and prairie envelop the family farm where Carver spent his childhood.

Herbert Hoover National Historic Site: This 81 acre site contains the cottage where Hoover was born and remnants of a tallgrass prairie.

Homestead National Monument of America: This 195 acre park in a tallgrass prairie landscape was the site of one of the first claims made under the 1862 Homestead Act.

Hopewell Culture NHP: Remnants of the Hopewell culture can be viewed on the riparian landscape bordering the Scioto River and its tributaries.

Hot Springs National Park: This 5,400 acre park protects 47 hot springs and their watersheds as well as eight historic bathhouses within a city landscape.

Lincoln Boyhood National Memorial: This working pioneer homestead was the site of the farm where Abraham Lincoln spent 14 years.

Ozark National Scenic Riverways: More than 300 recorded caves and nearly as many springs exist within the boundaries of this park which spans 134 miles of the Jacks Fork and Current Rivers.

Pea Ridge National Military Post: Deciduous hardwood forests dominate the 4,300 acres where the Battle of Pea Ridge saved Missouri for the Union.

Pipestone National Monument: Prairie and oak savanna dot this 282 acre site where Plains Indians have quarried pipestone for over four centuries and continue to quarry it today.

Tallgrass Prairie National Preserve: This 10,894 acre example of the once vast tallgrass prairie ecosystem contains the historic house and outbuildings of a former cattle ranching operation.

Wilson's Creek National Battlefield: A mix of woodland and prairie characterize this 1,750 acre battlefield which was the site of the first major Civil War engagement west of the Mississippi River.